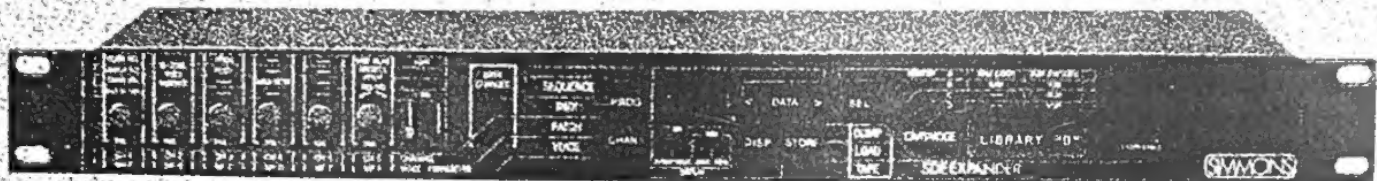# SDE
VOICES
HANDBOOK

SIMMONS

SDE VOICES
HANDBOOK

The list of sounds that are available for the SDE is continually being expanded.

More factory cartridges are available with many more sounds that can be used in SDE patches.

This handbook will aid you in getting the most out of the sounds, — enabling you to use them as starting points for your own versions of the sounds.

CONTENTS

FACTORY PATCHES

PATCH NUMBER	DESCRIPTION
1	VIBE
2	MARIMBA
3	GLOCK
4	CONGA
5	STEEL DRUM
6	CLAVE
7	T BELL
8	JANGLY BELL
9	HAND BELL
10	BASS SYNTH
11	LONG BASS
12	TOY PIANO
13	LONG BANJO
14	LOG
15	XYLO
16	HAND DRUM
17	TIMP
18	PERCUSSION VOICES
19	ORCHESTRA
20	ORCHESTRA MARIMBA

USER PATCHES – INITIALISED STATE

PATCH NUMBER	DESCRIPTION
1	MARIMBA
2	XYLO
3	VIBRA
4	CONGA
5	COWBELL
6	W/BLOCK
7	TIMBALE
8_	BIG BELL
9	CHURCH BELL
10	PIANO
11	GUITAR F/BACK
12	ANOTHER BASS
13	CARIBBEAN DRUM
14	WOBBLY LOG
15	GONG DRUM
16	HARP
17	CHINESE GONG
18	PERCUSSION
19	REVERSE – BASS
20	GONGY DRUMS

CPS FACTORY CARTRIDGE – Title 'selection'

BANK A

1	=	MARIMBA
2	=	VIB
3	=	XYLO
4	=	SPIKEY BOTTLE
5	=	LOW STEEL DRUM
6	=	SDE DRUM
7	=	LOW LOW BONGO
8	=	BLOCK
9	=	BIG BASS
10	=	HAND DRUM
11	=	BIGGER BASS
12	=	LOG DRUM SPIKEY
13	=	LOW LOGS
14	=	CHINESE HARP
15	=	DISTORTED KEYS
16	=	WOBBLIES
17	=	AFRICAN
18	=	BELL DRUM
19	=	GONG DRUM
20	=	PICCALO DRUM

BANK B

1	=	SHORT VIB
2	=	MALLET STAB
3	=	MARIMAPHONE
4	=	STEEL
5	=	CLAVE
6	=	SPIKEY STEEL
7	=	HAND BELLS
8	=	VICIOUS BASS
9	=	WOBBLY BASS
10	=	BRASS
11	=	VICIOUS BRASS
12	=	AFRICAN 1
13	=	AFRICAN 2
14	=	AFRICAN BLOCK
15	=	CHINESE GONGS
16	=	HARP
17	=	TRIANGLE
18	=	MONSTERS
19	=	WOBBLY WOBBLY
20	=	CHINESE

DESCRIPTION OF DIGITAL GENERATORS

Below is a basic description of the DG's used in SDE, the type of sounds that can be synthesized using them and table explaining how each Multi – parameter – control affects them individually.

DG 0

MPA Brightness	MPB Harmonic	MPC Bite	MPD Attack	MPE Release	MPF Gate time

This DG is ideally suited to synthesize such sounds as gongs, steel drums and cowbells.
Useful for sounds that are mellow but have a certain metallic quality. An example of the sounds using DG 0 are located in factory voices 4 and 5.

DG 1

MPA Brightness	MPB Harmonic	MPC Bite	MPD Attack	MPE Release	MPF Gate time

This DG is ideally suited to synthesize such sounds as piano, banjo's etc.
An example of a sound using this DG is located in factory voice 13.

DG 2

MPA Brightness	MPB Harmonic	MPC Bite	MPD Attack	MPE Release	MPF Gate time

DG 2 is best suited to produce such sounds as timpani, tubular bells etc. Factory Voices 1, and 17 use this DG.

DG 3

MPA Brightness	MPB Harmonic	MPC Bite	MPD Attack	MPE Release	MPF Gate time

This DG is best suited to produce synth, bass and brass effect. Examples of voices using this are held in factory voices 10 and 19.

DG 4

MPA Brightness	MPB Harmonic	MPC Bite	MPD Attack	MPE Release	MPF Gate time

This DG is suited to produce mallet struck instruments such as marimbas, vibes, glocks, xylophones, claves etc.
Increasing the BITE will accent the 'mallet impact'.
Examples of sounds using DG 4 can be heard in factory voices 2 and 6.

4

DG 5

MPA Brightness	MPB Harmonic	MPC Bite	MPD Attack	MPE Release	MPF Gate time

DG 5 is suited to produce such sounds as bells, glocks and hand drums.
An example of a sound using this DG can be heard in factory voice 9.

DG 6

MPA Harmonic 1	MPB Harmonic 2	MPC Bite	MPD Attack	MPE Release	MPF Gate time

This DG is suited to produce sound rich in harmonic content such as deep congas, bells, xylophones etc.
An example of this DG can be heard in factory voice number 15.

DG 7

MPA Harmonic 1	MPB Harmonic 2	MPC Bite	MPD Attack	MPE Release	MPF Gate time

DG 7 is ideally suited to produce sounds again rich in harmonic content such as bells, finger cymbals, the occasional vibrophone and glock. It is also good for woody sounds (using a short release time) such as blocks, and certain african type sounds. An example of a sound using this DG can be heard in factory voice 3.

This is only a rough guide. Each DG is capable of producing a wide range of sounds in addition to those mentioned above. For instance a very good log drum can be obtained using DG 4 although you would normally use DG 0 to obtain such sounds. The harmonic content of DG 4 may be more suited to obtaining the type of log drum sound you want.

Experimentation is the name of the game and all the hints, tips and suggestions below are only that – not rules to be followed rigorously.

SDE MPC'S

DG NO.	MPA	MPB	MPC	MPD	MPE	MPF
0	brightness	harmonic				
1	brightness	harmonic				
2	brightness	harmonic				
3	brightness	harmonic	bite	attack	decay	gate time
4	brightness	harmonic				
5	brightness	harmonic				
6	harmonic 1	harmonic 2				
7	harmonic 1	harmonic 2				

MUSICAL DESCRIPTION OF THE MPC'S

As you can see from the section entitled 'Description of DG's' the MPC's affect each DG in different ways. Let's use DG 1 as an example.

If you enter program voice mode and choose factory voice number 13 (which uses DG 1) the MPC's will affect the following components of the sound.

MPA Brightness

This control is self explanatory and it controls the overall brightness of the voice. Special attention should be given to the affect this control has on the dynamic sensitivity of the voice. If the Dynamic sensitivity control is set quite high you may find that at your hardest strike, the sound of the voice is distorted, yet if you turn the brightness down, the characteristics of the voice move away from the sound you are trying to achieve. In this case the Dynamic sensitivity is the control that should be adjusted. Note that you change the dynamic sensitivity in program patch mode.

MPB Harmonic

A DG has a total of four sound generators within it. This MP controls the tunings between the sound generators. To hear the effect this has on the sound of the voice, adjust the MPB whilst triggering the voice. You should notice that at certain settings the voice will sound "in tune" with itself whilst at other settings harmonics at different tunings will be heard, great for mimicking conga and tubular bell sounds in which a lot of differing harmonics are present.

MPC Bite

This MPC can be used to introduce "spike" into the beginning of a voice. This "spike" or "bite" will be longer if the gate time (MPF) is opened up. A good control for mimicking the sound of the stick or a mallet striking a wood block.

MPD Attack

This control will be familiar to keyboard players. It basically controls the 'rise time' of the sound, for example, turned completely off, the sound of the voice will start immediately it is triggered. As you turn it increasingly on, you will notice that the sound rises up increasingly slower, this is good for synthesing talking drum type sounds.

MPE Release

Another parameter familiar to keyboard players this control is sometimes referred to as decay and controls the length of time it takes for the sound to die away. The more release, the longer time the sound takes to die away, a low release setting will mean that sound will die away quickly. This is a very useful and important control, for instance, tubular bells and would need a long release time as they are a very long sound and take a long time to die away. However a log drum type sound will need quite a short release setting as it takes less time to die away.

MPF gate time

This MPC controls the length of the time the sound stays 'on' before it starts to decay away. This is similar to what happens when you hold down a key on a piano and then release it for a second or so. The sound will be 'on' whilst your finger is depressing the key and start to die away when it is lifted. The period of time the sound is 'on' is called the 'gate' time and is controlled by this MPC.

NOTE – when the MPF is fully anti-clockwise then the gate time is controlled by the controlling synthesiser. This is so that a controller such as MTM which has a 'dynamic' gate time can take control of the length of the sounds.

PROGRAMMING VOICES

1. When programming voices the choice of register (octave) is very important. What sounds average at one register may sound exceptional in another, try all the registers before dismissing that particular voice as not sounding very good.

2. Every time you enter programme voice mode, the MPC's are effectively set mid way (that's the 12.00 Clock position) regardless of their actual current position (except gate time). There is therefore initially a + or − of approximately 50% available for each MPC. e.g. You are programming the release of a particular voice – set the release to minimum and store the sound. When you re-program that voice once more, you will have a shorter sound and still approximately + or − 50% adjustment to make it even shorter. By this multiple adjusting / storing / adjusting / storing – extremes of adjustment can be achieved.

Programming and Storing Patches

Remember that the following information is stored within a patch:
a) The choice of voices or a single voice.
b) Whether MNSP is off or on.
c) The register (octave) of voices.
d) The dynamic sensitivity of the channels within the patch.
e) The overall volume.

When creating a patch, it is important to realise that it is the NUMBERS of the voices that are stored within the patch not the voices themselves. So what happens when you program user patch 1 to use voices in 'cartridge A 3' and then you plug in the wrong cartridge ? – you are allowed to do this and all that would happen is that the patch would sound completely different – because it would be using different voices.

To avoid this confusion, wherever possible try and tie the voices to the patches in the same SDE 'area' – e.g. 'user voices' are used only in 'user patches', each cartridge patch only uses voices stored in that cartridge.

Another example:
I am going to copy patch 'user 10', (which is actually using voice 'user 2') into a ram cartridge.

There are 3 things to consider:
Copying the patch, copying the voice and 'pointing' the new patch at the new voice (re-numbering).

1. Copying the patch itself – This is done by entering patch programme mode, pressing store so the display flashes, selecting the cartridge with the select button and then pressing 'store' again.
At this point the patch information is stored, but it is still using voice 'user 2'.

2. Copying the voice. – You need not do this as long as you can remember that the 'cartridge' patch 10 uses 'user' voice 2 – if you reprogram 'user' voice 2 then 'cartridge' patch 10 will sound different next time you use it.

To avoid this, copy the voice into the cartridge as well. To do this go into 'programme voice', press 'store', select the new location (voice no 2) in the cartridge and then press 'store' again to store that particular voice in the cartridge. So now you have a copy of 'user' patch 10 (using 'user' voice 2) in the cartridge – stored as 'cartridge' patch 10 (using 'user' voice 2).

3. Pointing the new patch at the new voice.
You now have to tell cartridge patch 10 to use cartridge voice 2 (not user voice 2). Enter Program patch (cartridge 10), change the voice number to cartridge voice 2, and then store the new patch (cartridge patch 10 now uses cartridge voice 2).

AN SDE APPLICATION
SDS 9/SDE (a percussion expander for the SDS 9)

1. SDS 9 and SDE is a very powerful drum kit/percussion expander combination.

Imagine the situation:

You have programmed your SDS 9 to transmit midi down channel 1 with the following notes being assigned to its 6 individual voices.

VOICE	NOTE
Bass	43
Snare	50
Rim	55
Hi Tom	59
Mid Tom	62
Low Tom	65

The patch you were programming SDE is 'MNSP off' and the following notes and voices selecting each 1 of SDE's channels.

SDE CHANNEL	MIDI NOTE	VOICE TYPE
1	43	Bass stab
2	50	Conga Hi
3	55	Conga Low
4	59	Marimba Hi
5	62	Marimba Med
6	65	Marimba Low

You play the SDS 9 pads and the sound of a bass stab is heard when you play the bass drum. – – Two congas at different pitches sound when you play on the Snare and the Rim, – – 3 different pitches of a Marimba are spread across the Toms.

You press the SDS 9 footswitch, the SDS 9 changes kit to one with a repeat echo programmed on the bass – the SDS 9 also instructs via midi SDE to change patch, this new SDE patch is a completely different set of notes and sounds.

SDE CHANNEL	MIDI NOTE	VOICE TYPE
1	43	Bass Stab
2	50	Orchestra Crash
3	55	Cowbell
4	59	Tubular Bell Hi
5	52	Tubular Bell Med
6	65	Tubular Bell Low

You are now playing tubular bells, orchestra crashes.

OOPS (or the SDE made even better)!!!!

With the SDE manual winging its way to the printers, certain last minute improvements were omitted. Non of the changes are very major but are listed here to save any confusion.

You can be sure that these improvements more than offset any difficulty they will cause.

1. With reference to your 'creative use of SDE' manual page 20.
For quicker access of patches, patch change procedure has been modified as follows.
When incrementing the patch number from 20, the next patch loaded will be patch 1 in the same bank. This will enable you to cycle round patches within a bank. Should you require to access a patch from another bank, then this can easily be done by use of the SELECT function.

2. With reference to your 'Creative use of SDE' manual page 20.
If you should select a cartridge bank which does not exist, (e.g. if no cartridge was loaded or if you tried to access cartridge banks C or D when you only had a CP1 or CP2 loaded) then the SDE will automatically skip over the non-existant banks, not flash them as described. If however a user patch has been programmed to use a voice from a non-existant cartridge bank, then when the patch is loaded, then the appropriate cartridge led will flash and the previous voice will remain on that channel. Similarly if a non-existant patch is programmed into a sequence then the appropriate cartridge led will flash and the patch will remain unchanged.

3. With reference to your 'Creative use of SDE' manual page 28.
When MNSP is selected (e.g. patch 1), all voices in a patch are likely to be the same, so when changing the voice number in a patch, if MNSP is selected then all voices that have the same number will be changed, this saves you from having to change every voice in turn. Should you wish to set a channel to a different voice simply turn MNSP off and change the voice number.

4. With reference to your 'Creative use of SDE' manual page 29.
When MNSP is selected then only octave shift can be applied to the patch. If a split has been programmed in the patch then a different octave shift can be applied to the top and bottom of the split. Only when MNSP is off can semitone and detune shift be applied on a voice by voice basis.

5. With reference to your 'Creative use of SDE' manual page 33.
At the bottom of page 33 to enter PROGRAM SPLITS, DISPLAY should be pressed again, not CHANNEL as described. To return to program patch DISPLAY should be pressed twice. This allows all parameters to be accessed by 1 button.

6. With reference to your 'Creative use of SDE' manual page 42.
When dumping sequences, the manual refers to 6 sequences, SDE in fact has only 1 sequence of 99 positions. Should more sequences be required then, SDE can be used in conjunction with TMI which has 8 sequences at its disposal.

7. With reference to your 'Creative use of SDE' manual page 55.
SDE program ROM is 32KB – twice as long as described!!!! this gives you twice as much software for your money!!

8. With reference to your 'Creative use of SDE' manual page 45.
When the SDE is dumping sequence and midi data, the display shows "– –", making this SDE display mode the same as on other SIMMONS products.